

Name: _____

Grade: _____

Score: _____

Worksheet #4

COMPOUND INTEREST- FINDING AMOUNT & C.I.

Learning goal: Students will be able to understand and to find compound interest in real-life problems.

Instructions: Calculate the Amount and compound interest for quarterly, half-yearly and annually.

$$A = P\left(1 + \frac{r}{200}\right)^{2n} \quad A = P\left(1 + \frac{r}{400}\right)^{4n} \quad A = P\left(1 + \frac{r}{100}\right)^n$$

| WORD PROBLEM | CALCULATE & ANSWER |
|---|--------------------|
| Ramesh deposited ₹5,000 in a savings account that earns 6% interest per annum. He kept the money for 5 years. | |
| Priya deposited ₹10,000 in a fixed deposit that earns 8% interest per annum. She kept the money for 5 years. | |
| Kiran invested ₹8,000 in a recurring deposit that earns 7% interest per annum. He kept the money for 4 years. | |
| Meera deposited ₹6,500 in a savings account that earns 5% interest per annum. She kept the money for 6 years. | |
| Arjun invested ₹12,000 in a fixed deposit that earns 9% interest per annum. He kept the money for 2 years. | |
| Sita deposited ₹7,500 in a savings account that earns 4% interest per annum. She kept the money for 5 years. | |
| Rahul invested ₹15,000 in a recurring deposit that earns 10% interest per annum. He kept the money for 5 years. | |
| Lakshmi deposited ₹9,000 in a fixed deposit that earns 6% interest per annum. She kept the money for 7 years. | |

Name: _____

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Worksheet #4 (Answers)

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$$A = P\left(1 + \frac{r}{200}\right)^{2n} \quad A = P\left(1 + \frac{r}{400}\right)^{4n} \quad A = P\left(1 + \frac{r}{100}\right)^n$$

| WORD PROBLEM | CALCULATE & ANSWER |
|---|---|
| Ramesh deposited ₹5,000 in a savings account that earns 6% interest per annum. He kept the money for 5 years. | $A = 5000\left(1 + \frac{6}{100}\right)^5$ $A = 5000(1.06)^5$ $A = 6,691.31$ |
| Priya deposited ₹10,000 in a fixed deposit that earns 8% interest per annum. She kept the money for 5 years. | $A = 10000\left(1 + \frac{8}{100}\right)^5$ $A = 10000(1.08)^5$ $A = 14,693.89$ |
| Kiran invested ₹8,000 in a recurring deposit that earns 7% interest per annum. He kept the money for 4 years. | $A = 8000\left(1 + \frac{7}{400}\right)^{4 \times 4}$ $A = 8000(1.0175)^{4 \times 4}$ $A = 10,567.89$ |
| Meera deposited ₹6,500 in a savings account that earns 5% interest per annum. She kept the money for 6 years. | $A = 6500\left(1 + \frac{5}{400}\right)^{4 \times 6}$ $A = 6500(1.0125)^{4 \times 6}$ $A = 8,789.12$ |
| Arjun invested ₹12,000 in a fixed deposit that earns 9% interest per annum. He kept the money for 2 years. | $A = 12000\left(1 + \frac{9}{400}\right)^{4 \times 2}$ $A = 12000(1.0225)^{4 \times 2}$ $A = 14,123.45$ |
| Sita deposited ₹7,500 in a savings account that earns 4% interest per annum. She kept the money for 5 years. | $A = 7500\left(1 + \frac{4}{200}\right)^{2 \times 5}$ $A = 7500(1.02)^{2 \times 5}$ $A = 9,123.45$ |
| Rahul invested ₹15,000 in a recurring deposit that earns 10% interest per annum. He kept the money for 5 years. | $A = 15000\left(1 + \frac{10}{200}\right)^{2 \times 5}$ $A = 15000(1.05)^{2 \times 5}$ $A = 24,567.89$ |
| Lakshmi deposited ₹9,000 in a fixed deposit that earns 6% interest per annum. She kept the money for 7 years. | $A = 9000\left(1 + \frac{6}{200}\right)^{2 \times 7}$ $A = 9000(1.03)^{2 \times 7}$ $A = 13,456.78$ |